

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/683,646	CIDECIYAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Dismery E. Mercedes	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amend. filed 3/16/2006.
2. ☒ The allowed claim(s) is/are 1-10, 12-23, & 25-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                 | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

  
**WAYNE YOUNG**  
**SUPERVISORY PATENT EXAMINER**

### DETAILED ACTION

1. Applicants amendment filed 3/24/2006 has been fully considered and entered.

#### *Reasons for Allowance*

1. Claims 1-10,12-23, & 25-44 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Independent Claim 1, is allowed over the Prior Art of Record since the cited references, in particular Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); taken alone or in combination do not teach or suggest: *"wherein the sequence selection stage and the Viterbi decoder each include at least one threshold, and wherein at least one threshold of the sequence selection stage and the Viterbi decoder is dynamically biased to improve detection reliability in the presence of data dependent noise and wherein an offset term is provided specific for the sequence selection stage to produce an error sequence, the offset terms comprising an offset threshold dependent upon the sequence at the output of the Viterbi decoder."*

Independent Claim 16, is allowed over the Prior Art of Record since the cited references, in particular Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); taken alone or in combination do not teach or suggest: *"wherein the processor includes at least one threshold, and wherein at least one threshold is dynamically biased to improve detection reliability in the presence of data dependent noise and wherein an offset term is provided specific for the selected sequence to produce an error sequence, the offset terms comprising an offset threshold dependent upon the sequence selected by the processor."*

Independent Claim 28, is allowed over the Prior Art of Record since the cited references, in particular Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); taken alone or in combination do not teach or suggest: *"signal processor ...analyzes*

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*error events and selects a sequence based upon the analysis of the error events based upon a chosen threshold, wherein the threshold is dynamically biased to improve detection reliability in the presence of data dependent noise and based upon an offset term specific for the selected sequence for producing an error sequence, the offset terms comprising an offset threshold dependent upon the sequence the sequence selected by the signal processor.”*

Independent Claim 29, is allowed over the Prior Art of Record since the cited references, in particular Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); taken alone or in combination do not teach or suggest: *“wherein the sequence selection stage and the Viterbi decoder each include at least one threshold, and wherein at least one of the threshold of the sequence selection stage and the Viterbi decoder is dynamically biased to improve detection reliability in the presence of data dependent noise and wherein an offset term is provided specific for the sequence selection stage to produce an error sequence, the offset terms comprising an offset threshold dependent upon the sequence at the output of the Viterbi decoder.”*

Independent Claim 44, is allowed over the Prior Art of Record since the cited references, in particular Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); taken alone or in combination do not teach or suggest: *“wherein the means for analyzing error events and the means for decoding each include at least one threshold, and wherein at least one of the threshold of the means for analyzing error events and the means for decoding is dynamically biased to improve detection reliability in the presence of data dependent noise and wherein an offset term is provided specific for means for analyzing error events and selecting a sequence to produce an error sequence, the offset terms comprising an offset threshold dependent upon the sequence at the output of the means for decoding.”*

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Reed et al. (US 5,961,658); Khrishnapura et al. (US 6,717,461 B2); Cideciyan et al. (US 6,460,150 B1); McEwen et al. (US 6,732,328 B1); Bush et al. (US 6,158,027); Livingston (US 6,513,141 B1); Coker et al. (US 6,104,766); Lee et al. (US 6,148,431); Kavcic et al. (US 6,201,839 B1); Kobayashi et al. (US 6,320,916); Cideciyan et al. (US 6,373,906 B1); Rae et al. (US 6,594,094 B1); Ashley et al. (US 889,154 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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WAYNE YOUNG  
SUPERVISORY PATENT EXAMINER